

The listing of claims will replace all prior versions, and listings, of claims in this application:

Listing of Claims:

1. (Currently amended) A gas burner including:
a distributor means having at least one distribution chamber to distribute an air gas mixture around said distributor,
said burner including a plurality of flame ports through which said gas mixture can pass and be ignited;
at least one injector associated with said distributor ~~means,~~ chambers;
~~said at least one~~ each of the injectors being positioned to inject gas into its associated ~~said at least one~~ distribution chamber via an associated venturi system ~~formed of a vertically directed passage and transition port and at least one venturi extension extending away from said transition port~~ including an upwardly directed passage and a transition port and at least three air gas mixture distribution channels to enable gas flow in at least three directions away from said transition port and towards associated flame ports, wherein the burner has an internal aperture, at least some of the flame ports being oriented towards the internal aperture, each distribution chamber including at least one transversely projecting distribution channel which projects into the aperture, the transversely projecting channel including flame ports adapted to direct combustion gasses into the aperture.
2. (Cancelled)
3. (Previously presented) A burner as claimed in claim 1 wherein said distributor means has a generally cylindrical outer surface.
4. (Currently amended) A burner as claimed in claim 1 wherein said distributor

means has at least two, or preferably three, equi-spaced inwardly extending arms and associated flame ports.

5. (Cancelled)

6. (Previously presented) A burner as claimed in claim 1 wherein said flame ports direct streams of air gas mixture towards the centre of said distributor means.

7. (Currently amended) A burner as claimed in claim 1 wherein ~~said distributor means has an~~ the aperture has ~~having~~ a clover leaf configuration.

8. (Previously presented) A burner as claimed in claim 1 wherein said distributor means is segmented, whereby each segment has its own distribution chamber and injector.

9. (Original) A burner as claimed in claim 8 wherein said distributor means is segmented, by means of segment walls between respective segments.

10. (Currently amended) A burner as claimed in claim [[1]] 8, wherein said distributor means is segmented by means of gas flow from said injectors.

11. (Currently amended) A burner as claimed in claim [[9]] 8, wherein said segments form one of the following: a cross shape with an arcuate or circumferential cross bar; a T shape with a convex arcuate or circumferential cross bar; a T shape with a concave arcuate or circumferential cross bar.

12. (Cancelled)

13. (Currently amended) A burner as claimed in claim 1 wherein ~~there are three venturi extensions which~~ the air gas distribution channels of each distribution chamber form a T

shape with an arcuate or circumferential cross bar.

14. (Currently amended) A burner as claimed in claim [[1]] 8, wherein each segment includes there are four air gas distribution channels ~~venturi extensions~~ which form a cross shape with an arcuate or circumferential cross bar.

15. (Cancelled)

16. (Cancelled)

17. (Previously presented) A burner as claimed in claim 1 wherein said burner includes a cap which is positioned on top of said distributor means.

18. (Previously presented) A burner as claimed in claim 1 wherein said flame ports are formed in one or more walls of said distributor means.

19. (Currently amended) A burner as claimed in claim 18 wherein said flame ports are formed in a cap ~~which is positioned on top of said distributor means.~~

20. (Currently amended) A burner as claimed in claim 19 wherein each distribution channel ~~said at least one venturi extension~~ has one or more occluding structures associated therewith for directing and or baffling said air gas mixture in its flow from said transition port to said flame ports.

21. (Currently amended) A burner as claimed in claim 20, wherein said occluding structures comprise a wall or ridge like formation extending away from ~~said at least one~~ the venturi extension.

22. (Previously presented) A burner as claimed in claim 1 wherein said distributor

means has at least one air entry port per injector.

23. (Cancelled)

24. (Currently amended) A burner as claimed in claim ~~[[23]]~~ 22, wherein each said plurality of air entry port~~[[s]]~~ is ~~[[are]]~~ formed in a side wall of said distributor means.

25. (Original) A burner as claimed in claim 24, wherein said air entry ports have a larger cross sectional area at intermediate regions by comparison to side regions of said air entry ports.

26. (Currently amended) A burner as claimed in claim ~~[[22]]~~ 24, wherein each said at least one air entry port is positioned in said wall of said distributor means so as to be located ~~adjacent~~ proximate to said injector.

27. (Original) A burner as claimed in claim 26, wherein each said injector is shielded by a portion of a wall of said distributor means to prevent air passing in through said air entry port from disturbing the operation of said injector.

28. (Currently amended) A burner as claimed in claim 24, wherein the distributor includes at least two inwardly extending arms, and wherein said air entry ports are located between respective arms of said distributor means, and respective injectors are located so that they are aligned with the direction of ~~radial extension~~ of said arm.

29. (Currently amended) A burner as claimed in claim ~~[[4]]~~ 1, wherein the distributor includes at least two inwardly extending arms, and wherein said burner includes a trivet which is aligned with said arms, so as to overlie said arms.

30. (Currently amended) A burner as claimed in claim ~~[[4]]~~ 1, wherein the distributor

includes at least two inwardly extending arms, and wherein said arms have a flame port arrangement whereby the axis of said flame ports on a respective arm is generally at an acute angle to the ~~radial direction of extension~~ of a respective arm.

31. (Currently amended) A burner as claimed in claim [[4]] 1, wherein the distributor includes at least two inwardly extending arms, and wherein said arms extend away from said distributor means for at least a part of the length of the arm at an angle of inclination or declination away from an imaginary horizontal plane.

32. (Currently amended) A burner as claimed in claim 1 wherein said distributor means is mounted on a manifold including a gas inlet which communicates with a cavity in said manifold, each of said injectors communicating with said being adapted to receive gas supply from the cavity.

33. (Currently amended) A burner as claimed in claim 32 wherein a wall of said cavity is ~~convex~~ shaped ~~whereby~~ such that the height of said cavity at the outer periphery is of a height greater than at the centre of said cavity.

34. (Currently amended) A burner as claimed in claim 32 wherein said manifold cavity has its top surface concave in shape ~~so as to collect towards the centre of said base spillage which occurs during cooking.~~

35. (Currently amended) A burner as claimed in claim 1 wherein said distributor means has an internal aperture such that the distributor means has an internal and an external perimeter with inwardly directed ports in said internal perimeter and outwardly directed ports in its external perimeter.

36. (Currently amended) A burner as claimed in claim [[2]] 74 wherein each ~~said at least one~~ venturi extension is oriented so as to be generally horizontal.

37. (Original) A manifold for a gas burner said manifold having an upper wall and a lower wall held in spaced apart relationship by a peripheral wall to define a cavity there between said manifold including means to mount at least one injector so as to deliver an air gas supply to a distribution means and an inlet port to allow connection to a supply of gas which can pressurize said cavity said upper and said lower wall being formed from relatively thin sections.

38. (Original) A manifold for a gas burner as claimed in claim 37 wherein said upper wall has a convex surface protruding into said cavity.

39. (Previously presented) A base for a gas burner as claimed in claim 37 wherein said manifold includes one or more ports adapted to receive said at least one injector nozzle.

40. (Original) A manifold for a gas burner as claimed in claim 37 wherein said upper wall has a generally concave surface on the outer upper side thereof.

41. (Original) A manifold for a gas burner as claimed in claim 40 wherein said upper surface of said manifold also functions as a cup to receive spills when cooking.

42. (Currently amended) A gas burner comprising one distributor means having at least two discrete distribution chambers therein, each chamber having communication with flame ports and including a venturi system to supply an air gas mixture thereto; said burner having ~~only one~~ a single manifold to conduct gas to respective injectors for each venturi system from a single gas supply connection to said manifold, each of said chambers having a radially transversely extending portion which ~~extends inwardly towards the centre~~ projects into an inner aperture of said burner; whereby between the ends of respective ~~radially~~ inwardly extending portions there is provided an unobstructed space.

43. (Currently amended) A gas burner as claimed in claim 42 wherein each ~~radially~~

transversely extending portion includes at least two sides which are generally parallel.

44. (Previously presented) A gas burner as claimed in claim 42 wherein each chamber also includes two oppositely extending circumferential or arcuate portions.

45. (Previously presented) A gas burner as claimed in claim 42 wherein said chamber also includes ~~a radially~~ an outwardly extending projecting portion.

46. (Currently amended) A gas burner as claimed in claim ~~[[1]]~~ 45, wherein said burner includes a cap.

47. (Currently amended) A gas burner as claimed in claim 46 wherein the distributor means or said cap includes a multiplicity of said flame ports.

48. (Currently amended) A gas burner as claimed in claim ~~[[1]]~~ 47 wherein said flame ports are formed by a combination of formations located on said distributor means and said cap.

49. (Currently amended) A gas burner as claimed in claim ~~[[1]]~~ 42 wherein ~~said each~~ distribution chamber includes at least ~~one~~ three venturi extension which each define two peripheral channels and a transverse ~~defines a peripheral~~ channel to deliver air gas mixture to flame ports.

50. (Currently amended) A gas burner as claimed in claim 47 ~~[[46]]~~ wherein said cap includes at least ~~one~~ three venturi extensions which extends into said chamber to define a radial channel and two peripheral channels to deliver air gas mixture to flame ports.

51. (Currently amended) A gas burner as claimed in claim ~~[[49]]~~ 42, wherein each said venturi system includes a vertical passage which opens into at least one generally horizontal venturi extension which extends away from said vertical passage in the direction of each

respective extending portion of said chamber.

52. (Currently amended) A gas burner as claimed in claim [[51]] 46 wherein ~~said at least one~~ each generally horizontal venturi extension is formed in said distributor means and/or in an underside of the cap.

53. (Cancelled)

54. (Currently amended) A gas burner including a distributor having flame ports in a wall portion of said distributor and or in a cap which will cooperate with said distributor, said distributor also including at least two venturis with each venturi having a respective injector associated therewith located internally of and near to a wall portion of said distributor, said distributor including at least two generally elongated air inlet ports which are located in said wall, said ports having a longitudinal axis which extends circumferentially around said distributor, said ports including at their extremities wall portions forming circumferentially extending wind shields for the manifold air intake ~~a reduced cross sectional area when compared to the central portions of said port.~~

55. (Currently amended) A gas burner as claimed in claim 54 , wherein a respective injector is located between opposing ends of said air inlet ports near to a wind shield ~~wall portion of said distributor~~ to prevent radially inwardly flowing air from interacting with said injector.

56. (Previously presented) A burner as claimed in claim 54 wherein said injectors and said air inlet ports are arranged with respect to said distributor so that a main stream of radially inwardly flowing air passes through said air inlet port as secondary air for said flame ports.

57. (Previously presented) A burner as claimed in claim 54 wherein said injectors and said air inlet ports are arranged with respect to said distributor so that air passing through said air inlet ports which will be used as primary air by said injectors approaches said injectors in a

generally circumferential direction from said air inlet ports.

58. (Cancelled)

59. (Cancelled)

60. (Original) A gas burner including a distributor means having at least one chamber to distribute an air gas mixture around said distributor means, said burner including a plurality of flame ports through which said gas mixture can pass and be ignited; at least one injector associated with said distributor means, said at least one injector being positioned to inject gas into said at least one chamber via a respective vertically directed converging passage terminating with an transition port which has communication with said chamber, a venturi being formed in part by said converging passage and said transition. port with a final part of said venturi being formed by at least one venturi extension which acts upon a generally horizontal flow of said air gas mixture flowing from said transition port, said transition port having at or near its rim two or more occluding structures associated there with for directing and or baffling said air gas mixture in its flow from said transition port to said flame ports.

61. (Original) A burner as claimed in claim 60, wherein said occluding structures comprise a wall or ridge like formation extending away from said protrusion and or said protrusion extensions.

62. (Previously presented) A burner as claimed in claim 60 wherein said occluding structures have a castellated appearance.

63. (Previously presented) A burner as claimed in claim 60 wherein said occluding structures are formed on said distributor means or in a cap associated with said distributor means or by a combination of both.

64. (Previously presented) A burner as claimed in claim 60 wherein said flame ports are formed on said distributor means or in a cap associated with said distributor means or by a combination of both.

65. (Previously presented) A burner as claimed in claim 60 wherein extending away from said transition port there are at least two venturi extensions.

66. (Original) A burner as claimed in claim 65 wherein said occlusion structures are located near to the edges of said venturi extensions.

67. (Previously presented) A burner as claimed in claim 65 wherein said venturi extensions are formed either on said distributor means or in a cap associated with said distributor means or by a combination of both.

68. (Previously presented) A burner as claimed in claim 60 wherein said occlusion structures taper toward their extremities.

69. (Currently amended) A burner as claimed in claim ~~[[8]]~~ 42 wherein said distributor means is an assembly of separate or discrete segments which are assembled or otherwise joined together.

70. (Original) A burner as claimed in claim 69, wherein said separate or discrete segments include interlocking formations thereon so that adjacent burner segments can be assembled together.

71. (Previously presented) A burner as claimed in claim 69 wherein said separate or discrete segments are held together as an assembly by means of a interaction with a burner cap.

72. (Previously presented) A burner as claimed in claim 69 wherein a circumferential

fixing means assists in holding or holds said separate or discrete segments together as an assembly to form a distributor.

73. (New) A burner as claimed in claim 1, wherein each distribution chamber includes at least one circumferentially extending distribution channel.

74. (New) A burner as claimed in claim 1, including wherein each venturi system includes an upright inward tapering section and a transverse expanding section.

75. (New) A burner as claimed in claim 1, wherein each distribution chamber includes two circumferentially extending channels and a transversely extending channel.

76. (New) A burner as claimed in claim 17, wherein each distribution chamber includes a venturi extension formed at least partially in the cap.

77. (New) A gas burner comprising one distributor means having at least two discrete distribution chambers therein, each chamber having communication with flame ports and including a venture to supply an air gas mixture thereto; the distribution chambers forming a periphery around an inner aperture; said burner having only one manifold to conduct gas to respective injectors for each venture from a single gas supply connection to said manifold, each of said chambers having a transversely extending portion, which extends inwardly towards the centre of said burner, whereby between the ends of respective transversely extending portions the inner aperture forms an unobstructed space.

78. (New) A gas burner as claimed in claim 77, wherein each transversely extending portion includes at least two sides which are generally parallel.

79. (New) A gas burner as claimed in claim 77, wherein each chamber also includes two oppositely extending circumferential or arcuate portions.

80. (New) A gas burner as claimed in claim 77, wherein said chamber also includes a radially outwardly extending portion.

81. (New) A gas burner as claimed in claim 77, wherein said burner includes a cap.

82. (New) A gas burner as claimed in claim 81, wherein distributor means or said cap includes a multiplicity of said flame ports.

83. (New) A gas burner as claimed in claim 82, wherein said flame ports are formed by a combination of formations located on said distributor means and said cap.

84. (New) A gas burner as claimed in claim 1, wherein said chamber includes at least one venturi extension which defines a peripheral channel to deliver air gas mixture to flame ports.

85. (New) A gas burner as claimed in claim 82, wherein said cap includes at least one venturi extension which extends into said chamber to define a peripheral channel to deliver air gas mixture to flame ports.

86. (New) A gas burner as claimed in claim 82, wherein each said venture includes a vertical passage which opens into at least one generally horizontal venture extension which extends away from said vertical passage in the direction of each respective extending portion of said chamber.

87. (New) A gas burner as claimed in claim 86, wherein said at least one generally horizontal venture extension is formed in said distributor means.

88. (New) A gas burner as claimed in claim 86, wherein said at least one generally horizontal venture extension is formed in an underside of a cap.

89. (New) A burner as in claim 1, wherein each of said chambers includes a transversely extending portion, which extends inwardly towards the centre of said burner, whereby between the ends of respective transversely extending portions there is provided an unobstructed space.

90. (New) A burner as claimed in claim 89, wherein said distributor includes at least two generally elongated air inlet ports which are located in said wall, said ports having a longitudinal dimension which extends circumferentially around said distributor.

91. (New) A burner as claimed in claim 90, wherein a respective injector is located between opposing ends of said air inlet ports near to a wall portion of said distributor to prevent radially inwardly flowing air from interacting with said injector.

92. (New) A burner as claimed in claim 90, wherein said injectors and said air inlet ports are arranged with respect to said distributor so that a main stream of radially inwardly flowing air passes through said air inlet port as secondary air for said flame ports.

93. (New) A burner as claimed in claim 90, wherein said injectors and said air inlet ports are arranged with respect to said distributor so that air passing through said air inlet ports which will be used as primary air by said injectors approaches said injectors in a generally circumferential direction from said air inlet ports.